

Changing Seasons

Winter 1996–1997

KENN KAUFMAN

In this, the last issue of *Field Notes* to be published solely by the National Audubon Society, we are tempted to look back farther than usual. Although the volume number printed on the cover implies that this is only the 51st year for this publication, the regional reports actually go back a full 80 years, to 1917, when the first six reports were published in National Audubon's magazine, then called *Bird-Lore*. (A somewhat more detailed history of the regional reports appeared in *Field Notes* for spring 1996—Vol. 50, No. 1, p. 8). So the National Audubon Society can point to eight decades of publishing this matchless source of information on bird distribution. Starting with the next issue, *Field Notes* will be published by the American Birding Association, in alliance with the National Audubon Society. We are confident that this will be a productive collaboration and that the publication will thrive.

So as we take a long look back and an optimistic look forward, the main purpose of this column is to take an immediate and short-term look back at the season just past, the winter of 1996–1997.

Stark contrasts in weather, and their impacts on birds and birding

Perhaps even more than most winters, your impressions of this season would have depended very strongly on where you experienced it.

Thus, on the northern Great Plains, Ron Martin could write that "The memories of this winter will undoubtedly remain etched in the minds of the hearty people who lived through it." Farther west, from Idaho, Dan Svingen wrote that "The major weather pattern this season was SNOW, SNOW, SNOW! Many mountain ranges received 150–200% normal snowpack." In the prairie provinces, Rudolf Koes and Peter Taylor reported that "most birders spent January in a state of near-hibernation"—not surprising, considering that Calgary, Alberta, had its third-coldest and second-snowiest winter on record, and that in southern Manitoba the temperature stayed below freezing continuously for 108 days straight! In fact, unusual cold and extreme snow levels extended across a wide swath of Canada, from British Columbia to much of Ontario and Quebec. Alaska's weather moderated toward the end of the season, but snowy and frigid conditions early in the winter had set the tone for the rest.

In other words, the northern and central parts of the continent were very cold and extremely snowy. But a little farther east it was a different story. In the Appalachians and along the southern Atlantic Coast this was "the winter that wasn't." New England's winter was among the ten warmest in the last century. In the Hudson-Delaware region it was "exceptionally warm and nearly devoid of snowfall." And on the Middle Atlantic Coast, Marshall Iliff reported that "Several Christmas Bird Count participants even kept reptile and amphibian lists, with the best recording three species of snakes!"

In most of the west and southwest, the season's weather was not so far off from long-term averages. The most notable avian events in that quadrant were most likely the results of weather patterns that had prevailed during the previous summer.

East: a lingering of opportunists

As expected in a mild season, a host of half-hardy birds lingered into the winter, or even through the winter, along the Atlantic seaboard. Gray Catbirds, seemingly not the toughest of cold-weather birds, survived into February in both Vermont and New Hampshire. Hermit Thrushes were widespread in the north, and there were Eastern Bluebirds in good numbers in marginal areas. The middle Atlantic Coast states had notable numbers of Ospreys, Wood Ducks, and other warm-weather species.



Many regions of North America enjoyed a major incursion of Snowy Owls during the winter of 1996–1997. This one was east of Calgary, Alberta, on February 15, 1997. Photograph/Terry Korolyk

Solitary Vireos lingered at least to December as far north as Delaware, New Jersey, Pennsylvania, Vermont, Rhode Island, Connecticut, and Massachusetts. (One assumes these were all of the eastern form, just officially split as a separate species, Blue-headed Vireo.) More surprising were White-eyed Vireos that remained in Virginia, Maryland, Delaware, and New Jersey.

Some warblers are traditionally rather hardy birds. Orange-crowned Warbler, a classic example, was found in higher numbers than usual north to New York during this winter. A sheltered creek below a sewage plant in Lancaster County, Pennsylvania, hosted five species of wintering warblers, a remarkable concentration for that state. Several warblers lingered record-late in Quebec, including a Nashville Warbler that made it to January 4. A Baltimore Oriole in Quebec made it to January 2. The regional reports for the eastern provinces and states contain a wealth of references to these lingering birds.

A difficult question relates to the status of these individuals that linger in mild seasons. Are they birds that are locked in here for the season, that will perish if the weather turns nasty? Or are they just waiting, poised to continue southward if necessary? Some birds elsewhere have been proven to continue their southward migration gradually, and only if they have to. These "facultative migrants" may still be moving south, or at least ready to move, in mid- to late January.

Central: a drift of owls

In recent years we have almost come to expect that most winters will produce a southward flight of northern owls, of some species, somewhere in the regions along the Canada-United States border. The winter of 1996–1997, however, was truly exceptional in this regard. All four of the major players among the northern owls put in major appearances, causing a stir across wide areas.

Snowy Owl: The invasion of this species was very widespread, with the Pacific Northwest receiving one of its biggest flights ever, and scattered individuals as far south as Oklahoma. Snowies were more common than usual in the Dakotas, southeastern Manitoba, the upper Midwest, and around the western Great Lakes, where Minnesota apparently had its second biggest recorded flight ever. Farther east, Snowies were considered "more common than the last few years" in New England, and their



Over the western half to two-thirds of the continent, the biggest story of this past winter was the invasion of mountain birds to the lowlands. Among the several species taking part, Red Crossbills were prominent. This bird was in Hansford County, Texas, February 22, 1997. Photograph/Greg W. Lasley.

numbers were "pretty good" in the Hudson-Delaware region.

Northern Hawk Owl: This was considered "the bird of the winter" in the Prairie Provinces, with remarkable numbers (up to 20+ in a day) in southern Manitoba and notable numbers also in southern Alberta and Saskatchewan. A total of 29 in Ontario set a new record for that province, and Quebec had more than 60 reports. Eighty in Minnesota made the second-biggest invasion there ever, and seven in Wisconsin tied that state's record. Two made it into North Dakota, where the species is rare. At least six Hawk Owls in New England were among the highlights of the winter there; at least four were known to be present simultaneously in Vermont in early January.

Great Gray Owl: The invasion of this species did not equal the numbers of the record flight noted the previous winter (1995–1996), but it was perhaps the second-best on record in Ontario and Minnesota. The species did press farther south than usual; 73 in Wisconsin made a record-high total there, and many were found unusually far south in Minnesota. South Dakota had its second individual

ever. Two reached Iowa, where there had been only one accepted record prior to the three that occurred the previous winter.

Boreal Owl: This species was found in record numbers in Ontario and Wisconsin, and in notable numbers in Minnesota and southern Manitoba. More than 20 were found in southwestern Quebec, a new high there. In addition, South Dakota had its fourth record ever, and one was found in Illinois for the first time since 1914. The latter bird was a one-day wonder; a far more cooperative Boreal that took up winter residence in Boston this season was, according to Peter Hunt, "probably seen by more people than any other member of its species in history."

Southward invasions of northern owls are generally thought to be caused by scarcity of food on their usual range, not by any particular weather conditions—in other words, the owls don't get too cold, they just get hungry. Some past owl invasions have been tied, at least in theory, to low points in the population cycles of various rodents. No doubt these rodent "crashes" are sometimes the direct causes for owl movements. This

winter, however, a simpler explanation offers itself: Because of the exceptionally deep snows over much of Canada, the rodents were simply unavailable.

The Great Gray Owl looks like a huge bird, but much of its apparent mass is actually a mass of feathers, and its diet is often similar to that of the much smaller-looking Boreal Owl or the intermediate-sized Northern Hawk Owl: That is, they all feed extensively on voles and similar small rodents. All three of these owls can hear voles moving under the snow, and are known to plunge into the drifts to catch them; Great Grays have been documented taking prey under a foot and a half of snow.

But there are limits. If the snow is five feet deep, it's no help to the owls to have a healthy vole population running around underneath it. During this winter, the snow was exceptionally deep over a huge area of southern Canada, and that alone could provide much of the explanation for the winter's owl bonanza.

Much of the explanation—but not all. There was evidence from the fall of 1996 that Northern Hawk Owls were already on the move by mid-October, especially in the Prairie Provinces, after the first snowstorm of the season but before the winter's drifts had really accumulated. Boreal Owls were also moving in some numbers in the Great Lakes area before the worst of the winter had really cranked up. And hardest to explain was the continent-wide movement of Snowy Owls. These birds originate from a different realm than the northern forest owls, and from a huge area of the high Arctic. Snowy Owl numbers (and breeding success) in a given locality may go up and down with the local populations of lemmings, but there is no good evidence that lemming numbers would “crash” all the way across the Arctic in the same year.

West: a flood of montane birds

At least from my Tucson perspective, there is no question that the most notable avian event of the season—the one that certainly must have involved the largest number of individuals—was the huge movement of mountain birds into lowland areas over much of the west and southwest. Beginning in the fall and continuing through the winter, this mass exodus was the biggest such flight in many areas, at least since the winter of 1972–1973. In northern California, it was the biggest ever: Veteran expert Don Roberson, writing in the fall report, stated that “Nothing on this

scale has ever been documented before” in that region.

Roberson also speculated on the source of the invasion and concluded that, even within the northern California perspective, no single source could have accounted for it. Reports from a wider scope back up the conclusion that a variety of areas had to have contributed to the total flight. In all cases, however, we assume that these invasions are triggered by a scarcity of food on the usual range; and widespread drought during the summer of 1996 would seem like an obvious cause for a failure of wild food crops. As massive as the flight was, its influence was not noted very far east of the Mississippi River. The upper Midwest may have had a few more Townsend's Solitaires and Varied Thrushes than usual, but the latter species did not reach the Northeast in any numbers, as it sometimes does.

Because so many species took part in this movement, I will pick out only a few for discussion here. Virtually all of the movements mentioned were well under way before the end of November; like many other avian events, this flight did not fit neatly within artificial seasonal limits. It is worth checking all of the western/southwestern regional reports (covering fall 1996 as well as this winter) for more details.

White-headed Woodpecker: I'd never thought of this as a potential invasion species, but in retrospect I don't know why not. It is a montane bird that feeds heavily on pine seeds at some seasons, and other pine birds certainly were on the move. This fall and winter, at least 11 White-headed were found outside their normal range in southern California, certainly equaling an invasion for this normally sedentary bird. Two were noteworthy out of range in northern California; one that wintered on the coast was considered one of the best birds of the season for Humboldt County. A couple in the Okanagan Valley of southern British Columbia may have been part of the scarce resident population there, but two in Montana provided about the seventh state record.

Clark's Nutcracker: These spike-billed corvids normally spend the winter on their own territories in the mountains, feeding largely on pine nuts which they have cached during the fall. It seems likely that the crop of pine nuts must have been poor over a wide area of the mountain west, and nutcrackers scattered in all directions. A few appeared in lowland valleys in British Columbia,

where they are seldom seen. Coastal and interior valley regions of California received what may have been their biggest invasion ever, apparently even dwarfing the big flight of autumn 1972. Small flocks set up residence in the mountains of southern Arizona, and a few individuals were scattered at lowland Arizona sites; the foothills of New Mexico had received their nutcracker invasion during the fall. Texas recorded the species in multiple locations for the first time in 24 years. Out on the Great Plains, several were recorded in western portions of Nebraska, Kansas, and Oklahoma. Even farther afield, Iowa had its sixth record, and single individuals appeared for first confirmed records for Illinois and for Louisiana!

I find it interesting that, although the movement of nutcrackers down and out of the mountains began by early fall (even mid-August in northern California), most of the really far-flung records did not occur until mid-December or even later, in January or February. This suggests that the birds that had vacated the mountains continued to move about in search of food. Some of the birds farthest out of range in the lowlands (such as those in Texas and Louisiana) did not stay long, but others—including flocks in the Huachuca Mountains of Arizona and on Jack's Peak, Monterey County, California—apparently found favorable conditions and stayed for months. Such winter invasions have the potential to establish new breeding areas. The colony of Clark's Nutcrackers on Cerro Potosi in northeastern Mexico, isolated from any others by hundreds of miles, may have been founded by such a refugee flock at some point in the past.

Cassin's Finch: This typical finch of the mountain west flooded into the lowlands west, south, and east of its breeding range. Sandy Williams, writing of the situation in New Mexico, captured the flavor of the flight: “Staging one of the largest invasions in decades, Cassin's Finches inundated the western two-thirds of the state, numbering into the hundreds at some locales, setting local records, and appearing in unusual situations, including shopping centers at Corrales, bottomlands in the lower Gila Valley, and cacti at Columbus; scattered reports of ‘Purple Finches’ (and even ‘Redpolls’) invariably proved to be Cassin's.” The invasion was the biggest on record in coastal regions of California, and perhaps in southern Arizona as well, although precise figures for comparison are hard to come by. Cassin's

Finches arrived in numbers in western Texas, and toward the end of the season it appeared they might breed in the Davis Mountains there, as they have been known to do after some past invasions. Numbers also appeared in western Nebraska, Kansas, and Oklahoma. In the latter state, "hundreds" of Cassin's were in the Black Mesa country. This brought to mind accounts of a similar invasion there in the winter of 1960-1961—a year that must have had another widespread flight, since it was also noted as a major invasion of Cassin's Finches in southern Arizona.

Red Crossbill: This was the bird of the winter for many observers in the Southwest. Red Crossbills were widespread in the lowlands of New Mexico, and in southern Arizona they could be found at any lowland location with planted pines. For several weeks in Tucson it was almost impossible to go outside without hearing crossbills calling in flight overhead. When I went to California in late December, I found the same situation there in Ventura and Santa Barbara. Crossbills were less common toward the north and east, but there were notable reports in Texas and on the Great Plains.

This season, a number of alert observers made special efforts to tape-record the crossbills. Red Crossbill is likely to be "split" into several species soon—perhaps as many as eight—and so far the callnotes seem to be the best way to separate these distinctive forms. Birds taped in California, Arizona, and Texas were identified as what is currently called "Type Two"—a name that will probably be replaced by something more elegant eventually, but worth knowing now. Type Two crossbills are very widespread in the mountain west, thriving on pine seeds in ponderosa pine forest of the kind that was seriously affected by drought in 1996, so it is not surprising that the birds should be scattering to look for food.

Lawrence's Goldfinch: One of our oddest "winter finches," this elegant little bird breeds very locally in California and Baja and periodically stages autumn migrations—to the east. Such eastward flights bring them to much of southern Arizona at least three or four winters in a typical decade, but only rarely do they show up much farther east. This season was one of those rare occasions. In Arizona, the species had one of its biggest invasions in many years. In New Mexico, where it had not been found since 1991, it was widespread and fairly

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1998 BIRDING TOURS

THAILAND

North, Central, Peninsular
3-25 January

SOUTH INDIA

Western Ghats, Madras,
Andaman Is.
1-24 January

SRI LANKA

24 January - 9 February

PHILIPPINES

Luzon, Mindanao, Cebu,
Palawan, Bohol, Negros
20 February - 23 March

BHUTAN

West to East Traverse
27 March - 19 April

MALAYSIA

Malaya, Borneo, Mt. Kinabalu
27 June - 19 July

numerous, especially in the southwestern part of the state. Texas had its best invasion since the early 1950s, or perhaps the best ever, with a number of flocks west of the Pecos River.

Although we are discussing it here with the "montane invasion," Lawrence's Goldfinch does not really belong in this category. Rather than a bird that moves downhill from mountain conifer forests, it is a bird that moves east from streamside groves in the foothills. It may be purely chance that its big flight happened to coincide with the movements of the other species mentioned here.

Postscript: Better get used to it?

Some readers, I suspect, may be already tired of reading about the march of the Eurasian Collared-Dove across North America. It is news, yes, but it is news that seems to drag on and on, sort of like the O.J. Simpson trial of the bird world. For those readers, I have some classic bad news and good news. The bad news is that this species will undoubtedly continue to feature in the Regional Reports and the "Changing Seasons" column for a while, as its advance continues from southeast to

northwest, until it has reached its essential barrier in the far northwestern edge of the continent. And the good news? The species is advancing so fast that it will probably reach those northwestern limits faster than anyone could have guessed, and then cease to be "news" on a continentwide scale.

This season, about a dozen years after the species was first identified on this continent, how far has it spread from its original Florida foothold? Try Colorado and New Mexico! Although some have wondered whether these far-flung outposts might have resulted from local releases, the pattern of expansion of this species across Europe (earlier in this century) included many such cases of "satellite" colonies being established well ahead of the main population front. The colony at Rocky Ford, in southeastern Colorado, persisted through this winter. Several small colonies are now known in the Texas panhandle, and west of there, the species has set up shop in Roswell, New Mexico. Unlike some other purported invaders at Roswell in the past, the doves have been well-documented, and no one is claiming that they were really government spy planes!